Naval Warfare Transformation

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DCNO (Warfare Requirements and Prog

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Naval Warfare

Transformations in…

- The Battlespace
  - How / Where we Fight
- Networks, Sensors
- Weapons and Hardware
- Platforms
- Manpower
- Innovative Ideas

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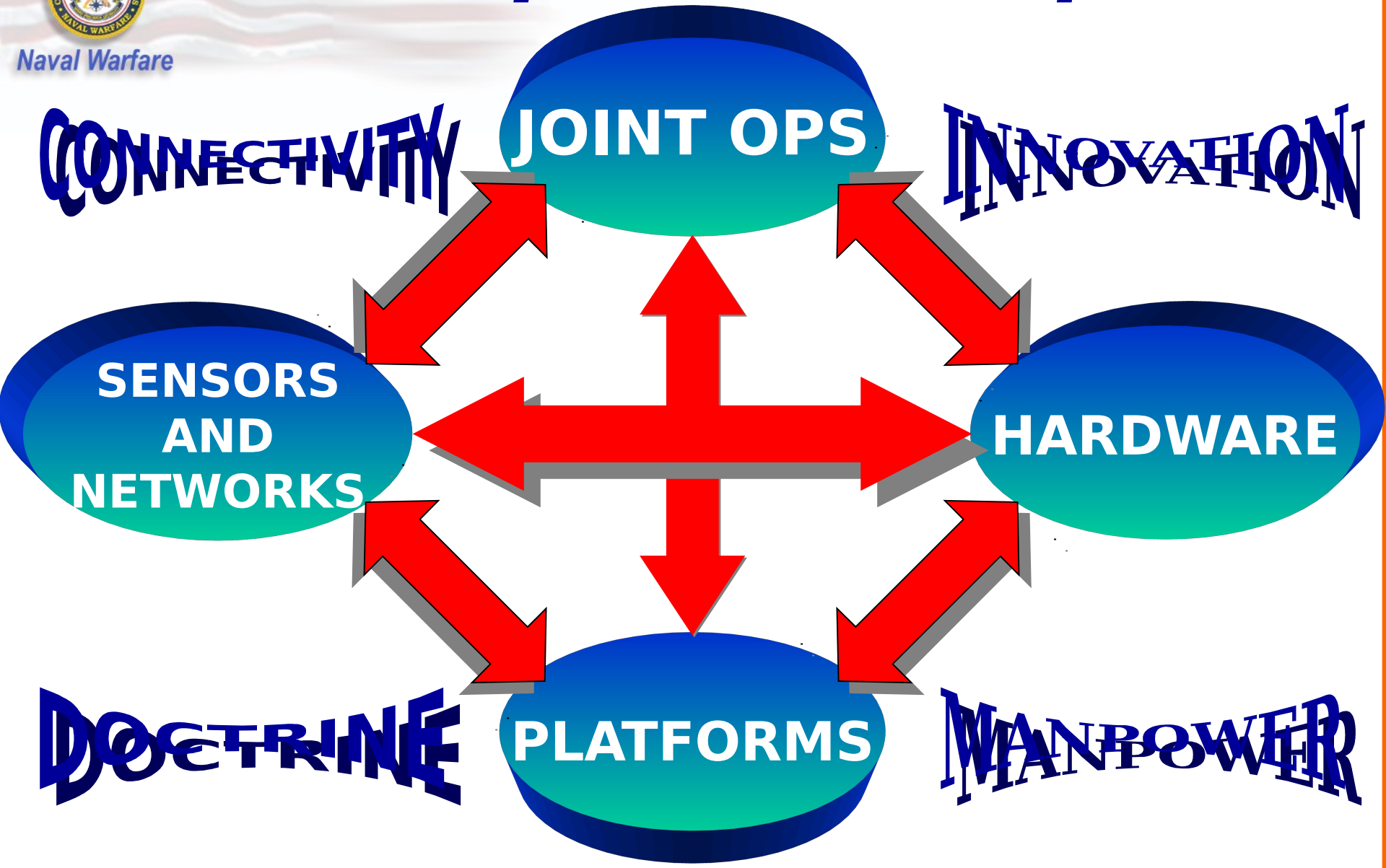
Naval Warfare

Battlespace Concepts



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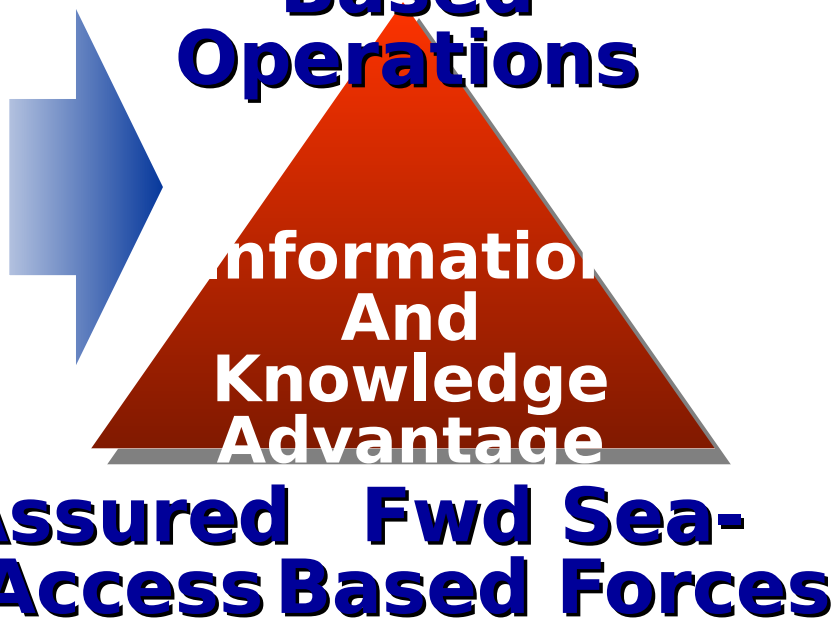
Naval Warfare

Network Centric Operations

Warfare deriving power from robust rapid networking of well-informed geographically dispersed forces

- **Precise, Agile Warfare**
- **Networked Warfighters, Not Just Nets**
- **Real-Time Shared Knowledge**
- **Concentrated, High Volume Effects**
- **Integrated Surveillance, Strike and Maneuver**



Dominate Tempo and Foreclose Enemy Options

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Naval Warfare

Network-Centric Warfare

SENSORS ("Knowing") .....

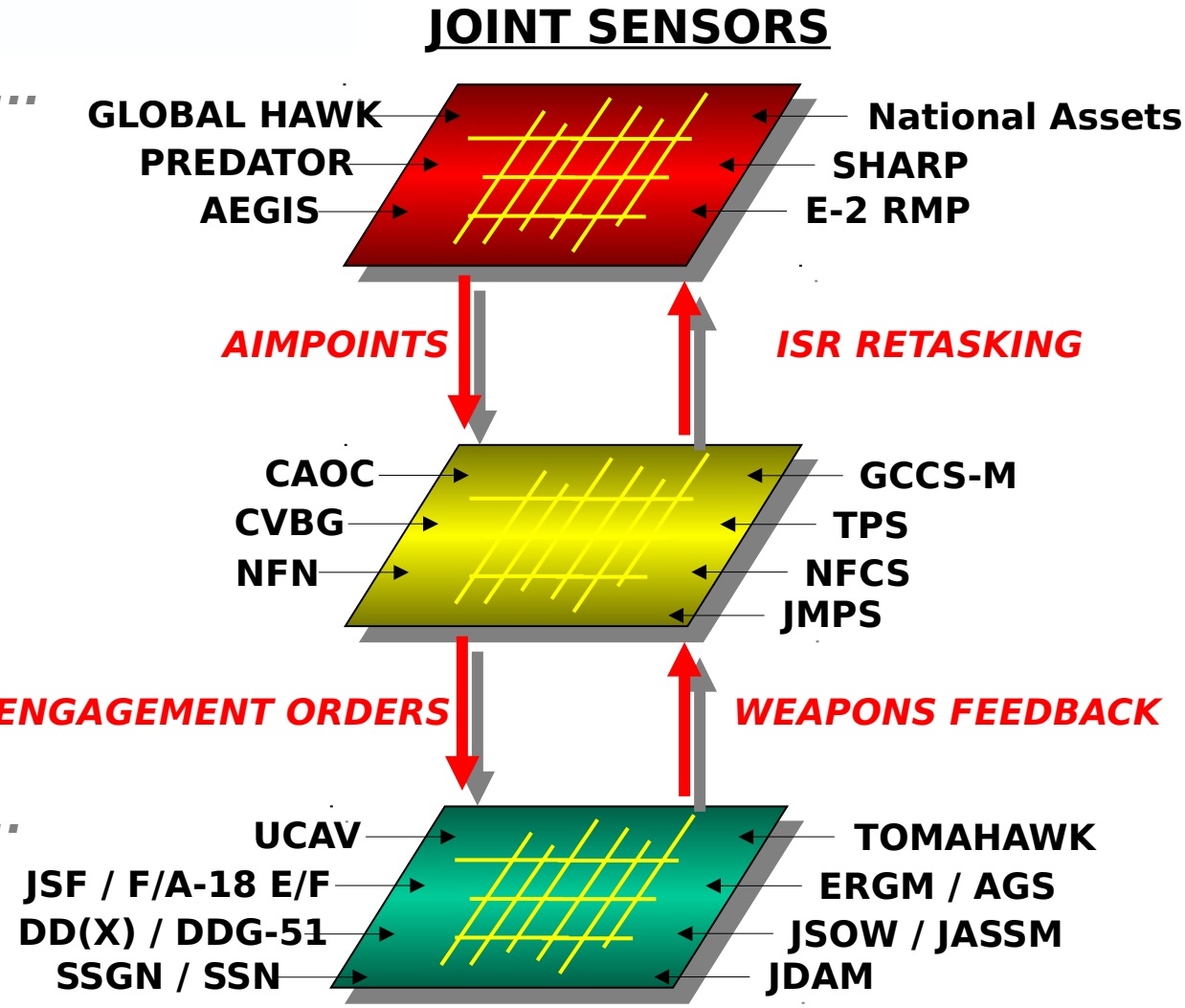
- Persistent
- Accurate

C2 ("Deciding") .....

- Fast
- Intuitive

SHOOTERS ("Doing") .....

- Precise



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Naval Warfare

FORCEnet is…

- A Common Integration of Networks, Sensors Weapons, and Platforms.
- Decision-Makers achieving Battlespace Dominance by employing Joint, Allied, and Coalition Forces throughout the theater.
- A New Way of Fighting which provides exponential increases in Combat Power.

FORCEnet Puts the ‘ Warfare’ in Network Centric Warfare

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Naval Warfare

Doctrine

- New Concepts of Operations for a New War
- Naval (Joint) Warfare against Inland Targets
- Homeland Defense / Naval Missile Defense
- Anti-Terrorism / Force Protection
- Short-notice, Precision Strike

Networks and Sensors

- **Network-Centric Warfare**
  - **NMCI**
  - **NFN**
  - **IT-21**
  - **Reachback Options**
- **Naval / Joint / Coalition Networks**
  - **CEC**
  - **LINK-16**
  - **COWAN**

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Naval Warfare

Platforms (Surface Warfare Transformation)

- **Platforms:**
  - DDG-51 Class
  - DD(X)
  - CG(X)
  - LCS/HSV
  - LPD-17
  - LHD-8
  - CVN-77 / CVN(X)
  - SH-60R / MH-60S

- **Future Drivers:**
  - Speed
  - Lower Footprint
  - Minimal manning
  - Modular
  - Reconfigurable
  - Lower O & S Costs

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Naval Warfare

Innovation
"Thousands of Sailors… Millions of Ideas !"

- Emerging technology provides endless opportunities for new systems and innovation.
- Rapid Prototyping
- Co-Evolution of Technology / Doctrine / Training / TTP's
- Experimentation

Digital Camera
Email
+ INMARSAT
Near Real Time Imaging for Naval Commanders

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Naval Warfare

Joint Operations

- **OPERATION ENDURING FREEDOM – Away Game**
  - **CVBG / ARG leading the fight against a landlocked country: Immediately Employable / Enabling**
  - **KITTY HAWK (AFSB)**
  - **USN / USAF Strike Packages – Joint Synergy**
  - **Special Forces calling in strikes for Naval Aircraft**

- **OPERATION NOBLE EAGLE – Home Game**
  - **USN / USCG / Multiple Agencies**
  - **Homeland Security / AT + FP**

Tomorrow's Navy…

Characteristics

- Networked
- Adaptable
- Expeditionary
- Speedy
- Interoperable
- Mobile
- Lethal
- Flexible
- Precise
- Balanced
- ROBUST

Back-Up Slides

Aviation and Submarine Transformation

- **Platforms**
  - F/A-18 E/F
  - JSF
  - Multi-Mission Aircraft (MMA)
  - V-22
  - SH-60R, MH-60
  - UAV
  - SSGN
  - VIRGINIA-Class

- **Weapons and Sensors**
  - E2C RMP
  - ATFLIR
  - JDAM
  - JSOW
  - AESA

Hardware

- RADAR and EW Improvements
  - VSR / MFR
  - AIEWS
- TACTOM
- ERGM / AGS
- Electric Drive
- MK-54 Torpedo
- Standard Missile Improvements

Manpower

- **Optimal Manning Concept**
  - **Rotational Crews**
    - ***"NOT FFG-Style Minimum Manning"***
  - **Contracting and Outsourcing intensive maintenance off the ship.**
  - **Transferring billets ashore**
- **Smart-Ship**
- **Leadership Opportunities / Empowerment**
- **Education Initiatives**
- **Pay / BAH Increases, SRB's, Continuation Pay**
- **Retention**

Connectivity

- Networks of tomorrow will link:
  - USN Assets in Rea-Time
  - Joint Connectivity
  - DOD and Government Agencies
  - Multi-National Forces and Platforms

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Naval Warfare

Investing for the Future

- $1.4B invested in S & T (FY02)
- Discovery and Invention
  - Covers the entire Warfighting Spectrum
  - University-based Basic Research
  - NWDC-led Experimental Initiatives
- Future Naval Capabilities (FNC's)
  - Development of highest priority Naval Capabilities
  - Identified transitions to R & D
  - Oversight by Requirements, Acquisitions, S&T, and Fleet Flag Officers.

Well-Balanced Hedge Against Future Risk